

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES

IN THE MATTER OF THE APPLICATION OF)	
ANDREW JOHNSON FOR AN AQUACULTURE)	FINDINGS OF FACT,
LEASE LOCATED IN THE UPPER NEW MEADOWS)	CONCLUSIONS OF LAW
LAKE, WEST BATH AND BRUNSWICK, SAGADAHOC)	AND DECISION
AND CUMBERLAND COUNTIES, MAINE)	

On January 8, 1997, Andrew Johnson of Waldoboro, Maine applied for an aquaculture lease totaling 30 acres of coastal waters of the State of Maine, in the Upper New Meadows lake, in the towns of West Bath and Brunswick, Sagadahoc and Cumberland Counties, Maine. The applicant requested the lease for a term of ten years for the purpose of cultivating quahogs and American oysters.

Approval of aquaculture leases is governed by 12 M.R.S.A. §6072. This statute provides that a lease may be granted by the Commissioner of the Department of Marine Resources (DMR) if it is determined that the project will not unreasonably interfere with the ingress and egress of riparian owners, navigation, fishing or other uses of the area; the ability of the site and surrounding areas to support ecologically significant flora and fauna; the use or enjoyment within 1,000 feet of municipally, state or federally owned beaches, parks, or docking facilities. The Commissioner must also determine that the applicant has demonstrated that there is an available source of organisms to be cultured for the lease site.

A public hearing on this application was held on May 21, 1998 at 7:00 p.m. in West Bath.

Two applications, each one seeking 30 acres in the Upper New Meadows lake were received from two applicants, Spinney Creek Shellfish, Inc., and Mr. Andrew Johnson. The hearings for these applications were held at 4 and 7 p.m. respectively on May 21, 1998. The Towns of West Bath and Brunswick were granted intervenor status in the proceedings for each application. To expedite the hearing process, the intervenors' testimony regarding matters of jurisdiction, water quality and impacts on fishing for both applications were ordered to be

consolidated by the Hearing Officer. A representative for Spinney Creek Shellfish, Inc., objected to the consolidation of the intervenors' testimony. The objection was overruled to advance the interest of justice and administrative efficiency, to shorten the two hearings and to eliminate the need for the same testimony being repeated in two separate hearings.

**Evidence Concerning the Nature
and Impact of the Proposed Lease**

The applicant was the principal witness who presented the application. He testified that the proposed lease site is located at the southern end of the Upper New Meadows River in the area referred to as the Upper New Meadows pond or lake. The body of water exists in its current state due to a causeway spill or dam that restricts the flow of water on the outgoing tide at the Route 1 bridge. The witness testified that the area requested totals 31.95 acres based on the Department's measurements of the actual buoy placements, not 30 acres as written in the application. The 30 acre dimensions provided in the application were 600 feet by 2178 feet. Exhibit 1.

The applicant testified that he would raise quahogs, Mercenaria mercenaria and American oysters, Crassostrea virginica using bottom planting techniques. Shellfish seed would be obtained from Maine hatcheries, including oyster seed from Mook Sea Farm, Inc., Walpole and quahog seed from Marine BioServices in South Bristol. Each year an approximate five to six acre portion would be planted with a year class of seed shellfish.

He chose the area for several reasons. He felt that it was good habitat for raising American oysters and quahogs since shellfish already grow there. It was originally chosen because it was a closed prohibited area. Seven months after the application was submitted, the classification changed to closed restricted, which allows for depuration harvesting from that area. The area was also chosen because the proposed site is entirely subtidal and thus completely under the State's jurisdiction. He felt it was commonly understood that municipalities managed the intertidal shellfish resource not the subtidal shellfish resource.[†]

The general operation would include planting eight 20mm size oysters and quahogs on bottom per square foot in the spring of the year to avoid predators. Thinning of the existing shellfish population involves the return of sublegal size shellfish to the bottom when they are harvested as has been the practice since August 1997. Dead quahog shell would also continue to be removed to increase suitability for the planting of seed shellfish. No surface trays or devices other than the corner markers would be used. As growth and survival rates are determined, the density of seed planted would be adjusted.

He testified that there would be no impact on riparian owner ingress or egress as the only structures would be the required boundary markers. Also, since there are no structures, it would have no impact on navigation. Regarding fishing, he testified that the proposed lease is in a closed restricted area for depuration harvest of shellfish. The proposed activities would not interfere with commercial eel or elver fishing or any recreational fishing on the proposed lease. There is a similar adjacent aquaculture lease application and he submitted a letter regarding that application. Exhibit 3.

He testified that the activities would not affect the current, that the resuspension of sediments would not be a problem due to the use of low impact harvesting techniques and that the lease activities would not cause a significant impact on flora and fauna because the species raised would be the same species growing there currently. He confirmed that the seed quahogs would come from Maine BioServices of South Bristol, Maine and would be obtained according to Department regulations. He stated there would be no interference with

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Shellfish harvesting is not allowed in a "prohibited" area. Shellfish harvested is allowed through one of two regulated processes called "relay" or "depuration". Relay is the movement of shellfish from a restricted area to an approved open area where the shellfish are kept and then retested after six months prior to approval for market. Depuration is the movement of shellfish from a restricted area to an approved facility that holds the shellfish in clean water for a period of time, less than six months, before being retested and approved for sale to a consumer market.

public (dock) facilities as there are none. He provided a letter of confirmation that Spinney Creek Shellfish would agree to depurate shellfish that he would harvest from a depuration area in accordance with Department regulations. Exhibit 4.

The applicant was asked if he was employed by Spinney Creek Shellfish, Inc. and if his application was an extension of its application in the Upper New Meadows pond. He responded that he is an independent fisherman who is authorized by Department regulations, Chapter 20.24(C), to harvest from depuration areas. His harvests in such areas are processed at the Spinney Creek Shellfish, Inc. depuration plant and he sells his product to Spinney Creek, Inc. He could choose to sell his product elsewhere, if he could establish a relay system.

The applicant was asked to speculate on how he would access the lake if the privately owned landing now used is removed. He stated that he did not know what he would do.

A local digger asked how many bushels per day were currently being harvested for depuration. The applicant stated that, based on eight days of harvest to-date in 1998, using an average of six harvesters per day and without exact numbers with him, he believed the depuration harvest ranged from 250 to 400 pounds per harvester (or about 3 - 5 bushels using 80 pounds per bushel for quahogs). This amount compared to 10 to 12 bushels per harvester when it first opened in August 1997.

The applicant was asked if he would still be interested in having an aquaculture lease in the Upper New Meadows lake if quahogs did not grow there. He answered that he would be interested in seeking a lease although he would likely raise other species of shellfish as he felt the area would be viable for some form of shellfish aquaculture.

The applicant was asked his opinion about the quality of the (wild) quahogs. He responded that he did not have an opinion as marketing was not his expertise. He was asked if all the quahogs would be removed to reseed the area and he responded that was correct. He explained that, separate from the eight days of harvest activity to-date this year, he had spent time removing tons of dead quahogs shell and replanting sub-legal size quahogs.

He was asked if he saw soft shell clams while depuration harvesting. He explained that while working there he has seen soft shell clams but few that were legal size.

A former DMR scientist explained that quahogs will grow intertidally as well as subtidally based on his experiences working in the Department during the late 1940's.

The municipality of the Town of Brunswick presented testimony as an intervenor in opposition to the application. An attorney for the Town of Brunswick presented the legal argument on behalf of the town's position as an intervenor. He presented his interpretation of 12 M.R.S.A. §6671(3) that was amended in 1983. In his opinion, that statute granted municipalities with a shellfish conservation ordinance the exclusive right to regulate the taking of shellfish within the boundaries of the municipality. He stated that an exception to this was for depuration areas and that diggers in depuration areas did not need a municipal shellfish license. He further explained that the word "taking" was replaced with the word "possession" in part because the Department did not have adequate resources to fulfill its monitoring and conservation requirements.

He testified that, in short, there is a dispute about jurisdiction and the towns of Brunswick and West Bath believe that the Department does not have the authority to regulate shellfish resources anywhere within the boundaries of municipalities that have state approved conservation ordinances. The Town of Brunswick's Shellfish Ordinance was entered for the record. Exhibit 7.[†]

Mr. Alan Houston, Brunswick's Natural Resources Planner, presented testimony. He described the town's marine resource program and its history since 1950. He stated the

[†] By virtue of the legislative action, the State has been given management authority over the marine resources in subtidal waters, those waters below mean low water. The State also has management authority in intertidal areas, or the area above mean low water in towns that do not have approved municipal shellfish conservation programs or ordinances.

budget for this program was approximately \$1000 in 1976 and that the current budget is estimated at \$130,000, the largest municipal budget item of its type in the State. He stated that this program includes marine surveys, transplanting, water quality, shoreline surveys, public education, pollution abatement, updating the shellfish ordinance, a coastal protection plan and a sludge ordinance.

He testified that in 1978 the New Meadows lake (in Brunswick) had a project raising American oysters in surface trays. He stated that Brunswick's marine resource program also conducted similar work with soft-shell clams that were planted intertidally and quahogs that were planted subtidally. When he was later questioned about the success of this project, he explained that it had failed.

He stated that Brunswick became interested in the requirements of the classification program for the New Meadows lake in 1994 and began assisting the Department at that time. He described work and meetings with the Department officials and in his opinion the water quality testing results should allow for an open classification of the Upper New Meadows lake. Exhibits 8 and 9.

He testified that, in his opinion, the quahog resource in the Upper New Meadows lake was abundant and that resource could be available to the public, if the Town of Brunswick could move the quahogs to another area under a Department approved relaying program. All quahogs could then be harvested when the quahogs would be considered clean. He was asked if Brunswick had applied for the permits to do this and his answer was no. Exhibit 14.

A member of Brunswick's Town Council testified on the work that the town has put into its shellfish resources and zoning, particularly in the New Meadows area. She explained that the Town Council supports municipal aquaculture activities, however the Council does not support the right of private citizens to have an aquaculture lease in the New Meadows based on their belief that the area could now be opened for harvesting (non-restricted for depuration). She provided a copy of a resolution written by the Town Council. Exhibit 13.

The municipality of the Town of West Bath presented testimony as an intervenor in opposition to the application. An attorney for the Town of West Bath presented the legal position of the Town of West Bath.

The Town of West Bath adopted the technical and testimonial presentation of the Town of Brunswick. The chairman of the West Bath Board of Selectmen provided testimony. The

selectman explained that the town has a Department approved municipal shellfish ordinance. He described plans for the town's enforcement regarding two overboard discharges in the Upper New Meadows lake and other town activities on eliminating overboard discharges.

Joel Knee, the chairman of the West Bath Marine Resources Board, provided testimony. He described his background and qualifications for his volunteer position on the Board. He testified on the town's efforts to improve water quality to open shellfish harvesting areas during the past five years. He described the town's shellfish management activities and stated that the town currently issues 23 resident and three nonresident shellfish licenses. He is opposed to the possibility that Maine will adopt shellfish management measures used in the State of Connecticut. Towns in Connecticut lease mud flats to the highest bidder and he is concerned this may happen in Maine. In response to a question, he testified that the applicant has assisted the town with activities that resulted in the adjacent lower pond area being classified as opened.

Another selectman for the Town of West Bath testified in opposition to the proposed project.

Paul Anderson, Department of Marine Resources, Director of the Public Health Division, Public Health Administrator, described the legal and technical requirements regarding water quality classification. He explained that the rules for this process are established by a national body called the Interstate Shellfish Sanitation Conference (ISSC). There are three parts in the water quality classification sanitary survey: 1) water quality tests, 2) the shoreline survey and 3) the hydrography of the growing area. In the most recent review, it was concluded that the Upper New Meadows lake still had problems caused by point source and non-point source pollution, which resulted in a prohibited area around the point source and a restricted area around the prohibited area.

Important components of the water quality classification decisions are the area's hydrography, its lack of flushing, and turnover of the water in the lake. The majority of the area of the New Meadows lake has a classification of restricted harvest which requires shellfish

harvested from that area to be depurated prior to marketing. Mr. Anderson stated that the current classification of this body of water is appropriate and is the highest possible classification for that body of water. In his opinion, a change of the classification was not imminent.

He also explained that meat tests, the raw analysis for fecal coliform bacteria in shellfish, are not a criterion for determining water quality classifications. This test is used to determine the efficacy of the depuration process at depuration plants. Shellfish that fail this testing are either treated further or destroyed. He also stated that this type of test is a marketplace requirement.

He answered several questions on how the Department of Marine Resources determines a water body's water quality classification. He was asked to give a time frame on when the area could be classified as open. He stated that he could not provide a definite answer.

The Town of Brunswick entered Exhibits 10, 11 and 12 following the public health administrator's testimony and questions. (Exhibit 10, Area L File memo by Paul Anderson dated 5-20-98. Exhibits 11 and 12, data on fecal coliform samples and map.)

Jon Lewis, a marine biologist employed by the Department of Marine Resources, testified about the statutorily required site review that was conducted on October 14, 1997. Exhibit 2. The Department report included the following criteria: a scuba diver survey of the local flora and fauna and bottom composition; vertical profiles of the water column which include temperature, salinity, dissolved oxygen and ph, and depths; collection of plankton; proximity measurements of the proposed site to shore and to other leases; plus observations and documentation of local fisheries.

According to the Department report, the actual acreage sought is 31.95 acres. During the dive on the proposed lease the biologist made observations in three relative abundance categories. Fauna observed occasionally included false angle wing, blue mussels, soft-shell clams, bread crumb sponge and a sculpin. The common category included unidentified bryozoans. The abundant category included quahogs and dog whelks. The bottom consisted of approximately eight inches of mud. The depth at the center of the area was estimated at 12.6

feet. The southern boundary was approximately 400 feet from the Route 1 bridge. No moorings or navigational markers were observed in the area. Depuration harvesting was observed taking place on October 14, 1997, the date of the site review field work. The nearest existing aquaculture lease is located in Harpswell, 10 miles away and there is a lease application for an adjacent 30 acre site in the Upper New Meadows lake. The site is not located within any prohibited boundaries for essential habitation for endangered or threatened species according to Inland Fisheries and Wildlife.

The Department biologist was asked if he observed an abundance (or any) seed shellfish. He answered that he did not. He explained that the area of this application was slightly deeper in depth than the adjacent application.

Representative Reginald Pinkham, the State Representative for District 49 that includes the Town of Brunswick, testified. He stated that he also spoke for Senators Small and Harriman, the State Senators for Brunswick and West Bath, and, Representative Peavey, the State Representative for West Bath. He testified that he was not opposed to public aquaculture such as that conducted by the town of Brunswick or private aquaculture. He stated that he was opposed to the granting of this application and the adjacent application with a combined total area of approximately 60 acres because that would leave less than 30 acres available to the public. He was also of the opinion that the area should have been reclassified as open for harvesting prior to this time. He provided a written copy of his testimony. Exhibit 15.

Several shellfish harvesters testified in opposition to the proposed lease. Each was upset about the water quality classification of the area. One felt the application would not have been submitted if the area was classified as open and that the Department needs to do more water quality research. Two harvesters spoke about the potential impact of removing the causeway and creating an intertidal zone in the Upper New Meadows lake, and that this should be considered or be done by the State. Two harvesters testified about the impact of the area not being reclassified as an open approved area. One harvester was asked if the nearby Brunswick

areas opened to harvesting during the past year was beneficial to him. He responded that it was not beneficial to him because he did not have a license to harvest in Brunswick.

Findings of Fact

The proposed 31.95 acre lease is located in the southern half of the Upper New Meadows lake. The boundary for the towns of West Bath and Brunswick runs down the middle of the lake and through the proposed lease. The southeast corner is the nearest corner to the shoreline and the distance is approximately 400 feet to the Route 1 Bridge. The proposed lease activities do not require the use of any structures other than the mandatory corner markers. Based on the information presented, I find that the proposed lease will not unreasonably interfere with the ingress and egress of the riparian owners.

According to the evidence and testimony, the site is not located in a marked navigational channel. Navigation within the boundaries from the shore is unrestricted as there is no use of any structures on or beneath the surface. The area is shallow and that depth restricts the use of the area to small shallow draft vessels. The testimony and evidence presented by the applicant did not request to restrict eel fishing, recreational fishing or commercial boating activities. Based on the information presented, I find that the proposed lease will not unreasonably interfere with navigation within the area.

According to testimony and evidence, there was a quahog fishery in the lake years ago and a failed attempt by the Town of Brunswick to use the area for aquaculture in the past. At a point in time, also years ago, the lake was closed for bacterial pollution. There was sentiment expressed by several witnesses that the lake would be classified open soon and that the existing shellfish resource in the lake would then be available to harvest. The lake was opened to the taking of shellfish by depuration harvesting on August 21, 1997. The area has been available for depuration harvesting for those who choose to follow the requirements to harvest under the requirements of this classification since that time.

Testimony by Brunswick's Natural Resource Planner stated an interest in relaying the quahog resource to an area that was approved open. However, this action had not been initiated. Neither intervenor had assessed the abundance of the quahog resource to determine the level and sustainability of the resource.

The Department's biologist observed the quahog resource as abundant, but he did not observe seed or young shellfish. This supported testimony and evidence presented by the applicant that the existing shellfish resource observed during depuration harvesting was primarily old stock that if it was thinned it would make the area viable to become productive and sustainable.

There are no regulations that prohibit persons from choosing to follow the requirements to harvest in a subtidal restricted area. There are no regulations that prohibit persons from developing another depuration facility within the State that meets the applicable requirements. Speculation and conjecture on when an area might be classified as open is not acceptable evidence on which to base a lease decision. The actions considered in this matter are therefore based on the current classification of the area. Based on the evidence and testimony, I find that the lease will not unreasonably interfere with fishing, aquaculture leases, or other uses of the area.

The applicant has extensive experience in the harvest and rearing of shellfish. He testified that the size of the operation was anticipated to support the proposed level of aquaculture activity. There was disagreement on the appropriate planting densities to use for quahogs and oysters, however those differences were indicated to represent the difference between intertidal and subtidal habitats. The application is for an area that is subtidal.

It is understood that when shellfish spawn the larvae are dispersed in to the water column which carried by water currents spread over nearby areas. The aquaculture planting of shellfish that eventually grow and reproduce could therefore result in an enhancement of the public area resources as well as the area of a lease.

Based on the evidence and testimony the activities should not interfere with the ability of the area to support existing flora and fauna. Therefore, I find that the proposed activities will not unreasonably interfere with the ability of the site and surrounding areas to support existing ecologically significant flora and fauna.

Testimony and evidence provided by the applicant indicate that the shellfish seed stock will come from commercial hatcheries in Maine. The applicant is required by statute and regulation to comply with all applicable shellfish testing requirements. Given this information, I find that there is an available source of quahogs and American oysters to be cultured on the proposed lease site.

According to the evidence and testimony the proposed lease is not located near any public facilities. Based on this information, I find that the proposed lease activities will not unreasonably interfere with public use or enjoyment and that the site is not located within 1,000 feet of any municipally, state or federally owned beaches, parks, or docking facilities.

Conclusions of Law

Based on the above findings, I conclude that:

1. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner;
2. The aquaculture activities proposed for this site will not unreasonably interfere with navigation;
3. The aquaculture lease activities proposed for this site will not unreasonably interfere with fishing or other uses of the area, taking into consideration the number and density of aquaculture leases in the area;
4. The aquaculture lease activities proposed for this site will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna;
5. The applicant has demonstrated that there is an available source of quahogs, Mercenaria mercenaria and the American oyster, Crassostrea virginica to be cultured for the lease site; and
6. The aquaculture lease activities proposed for this site will not unreasonably interfere with public use or enjoyment within 1,000 feet of municipally, state or federally owned beaches or parks, or municipally, state or federally owned docking facilities.

The evidence in the record supports a finding that the proposed aquaculture activities meet the requirements for the granting of an aquaculture lease set forth in 12 M.R.S.A. §6072 (7-A).

Decision

Based on the foregoing, the Commissioner grants the requested 31.95 acre lease to the applicant for a period of ten years from the date of this decision for the purposes of cultivating quahogs and American oysters using bottom culture techniques without the use of any type of gear or structures as described in the application and the hearing record. The applicant shall pay the State of Maine rent in the amount of \$50.00 per acre per year. The applicant shall post a bond or establish an escrow account in the amount of \$500.00 conditioned upon its performance of the obligations contained in the aquaculture lease documents and all applicable statutes and regulations.

Conditions to be Imposed on Lease

The Commissioner may establish conditions that govern the use of the lease area and impose limitations on aquaculture activities. Conditions are designed to encourage the greatest multiple, compatible uses of the lease area, while preserving the exclusive rights of the lessee to the extent necessary to carry out the purposes of the aquaculture law.

The following conditions are placed on this lease: commercial and recreational fishing otherwise permitted by law is to be allowed in the open areas of the lease site. The lease area shall be marked in accordance with U.S. Coast Guard and Department of Marine Resources requirements.

The Commissioner may commence revocation procedures if he determines that substantial aquaculture has not been conducted within the preceding year or that the lease activities are substantially injurious to marine organisms. If any of the conditions or requirements imposed in this decision, in the lease, or in the law are not being observed, the Commissioner may revoke the aquaculture lease.

Dated:

George D. Lapointe (Commissioner)
Department of Marine Resources